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FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

U. S. DEPT. OF AGRICULTURE
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APR 18 1966

CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
ARIZONA

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,
SALT RIVER VALLEY WATER USERS ASSOCIATION
and
ARIZONA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies
named above in cooperation with the Federal, State and pri-
vate organizations listed on the last page of this report.

||||||| AS OF |||||
APR. 1, 1966

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
WESTERN UNITED STATES _____	MONTHLY (FEB.-MAY) _____	PORTLAND, OREGON _____	ALL COOPERATORS
BASIC DATA SUMMARY _____	OCTOBER 1 _____	PORTLAND, OREGON _____	ALL COOPERATORS
STATES			
ALASKA _____	MONTHLY (MAR.-MAY) _____	PALMER, ALASKA _____	ALASKA S.C.D.
ARIZONA _____	SEMI-MONTHLY _____ (JAN.15 - APR.1)	PHOENIX, ARIZONA _____	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
COLORADO AND NEW MEXICO _____	MONTHLY (FEB.-MAY) _____	FORT COLLINS, COLORADO _____	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO _____	MONTHLY (JAN.-JUNE) _____	BOISE, IDAHO _____	IDAHO STATE RECLAMATION ENGINEER
MONTANA _____	MONTHLY (JAN.-JUNE) _____	BOZEMAN, MONTANA _____	MONT. AGR. EXP. STATION
NEVADA _____	MONTHLY (JAN.-MAY) _____	RENO, NEVADA _____	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON _____	MONTHLY (JAN.-JUNE) _____	PORTLAND, OREGON _____	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH _____	MONTHLY (JAN.-JUNE) _____	SALT LAKE CITY, UTAH _____	UTAH STATE ENGINEER
WASHINGTON _____	MONTHLY (FEB.-JUNE) _____	SPOKANE, WASHINGTON _____	WN. STATE DEPT. OF CONSERVATION
WYOMING _____	MONTHLY (FEB.-JUNE) _____	CASPER, WYOMING _____	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA _____	MONTHLY (FEB.-JUNE) _____	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA _____	MONTHLY (FEB.-MAY) _____	CALIF. DEPT. OF WATER RESOURCES, P.O. Box 388, SACRAMENTO, CALIF.

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
ARIZONA

(Salt, Verde, Gila and Part of Lower Colorado River Basin)

Report prepared by

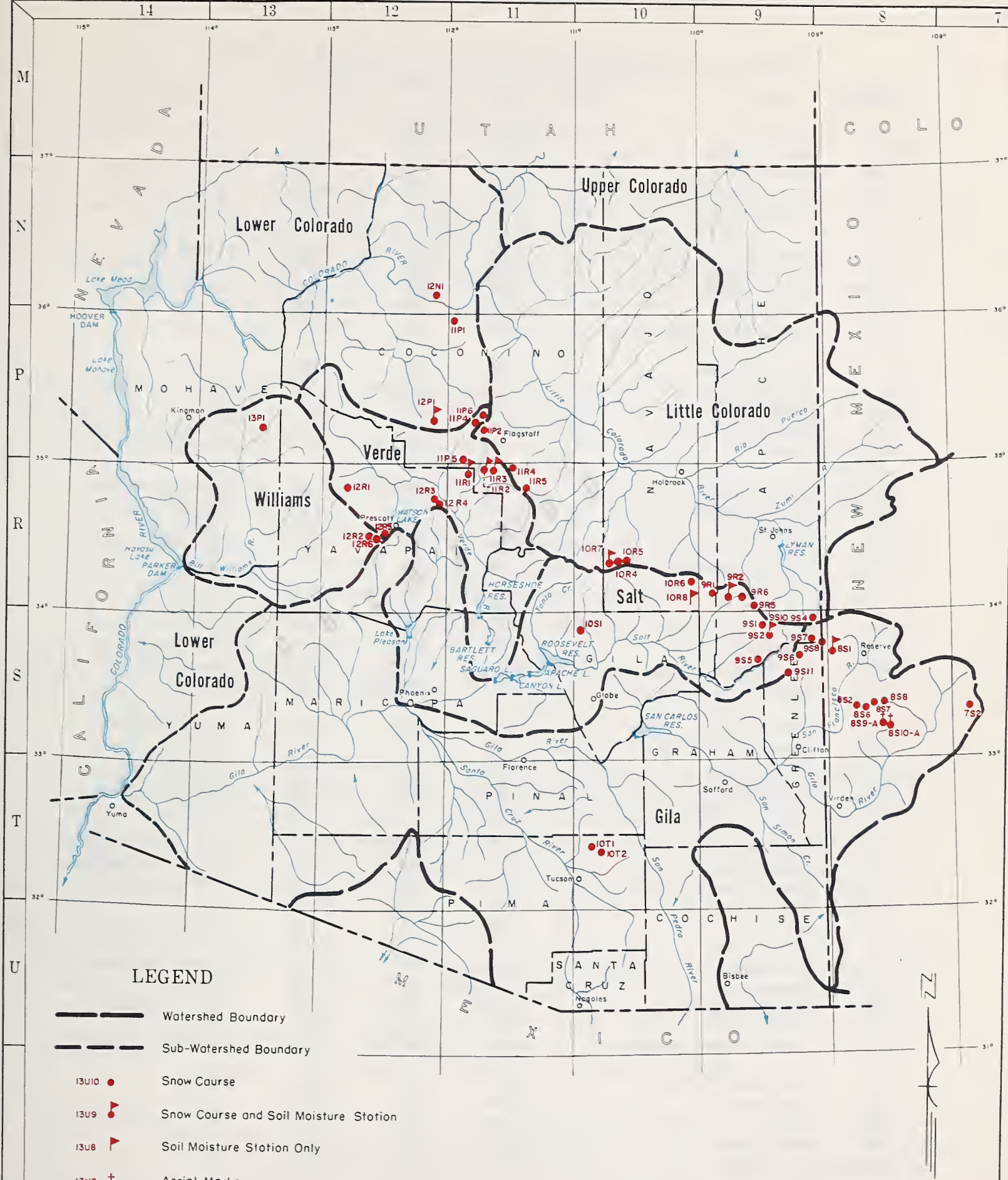
RICHARD W. ENZ...SNOW SURVEY SUPERVISOR
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PHOENIX, ARIZONA 85025

Issued by

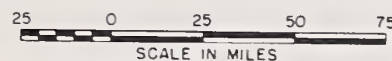
MERRITT D. BURDICK
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE

VICTOR I. CORBELL
PRESIDENT ,
SALT RIVER VALLEY WATER USERS ASSOCIATION





ARIZONA COOPERATIVE SNOW SURVEYS Snow Courses and Sub-Watersheds



INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

Number**	Name	Sec	Twp	Rge***	Elevation	River Basin
9S1	Baldy (p)	28	7N	27E	9125	Little Colorado
10T1	Bear Wallow	6	12S	16E	8100	Gila
9S6	Beaver Head	13	4N	30E	8000	San Francisco
9S10-*	Black River Divide	10	6N	27E	9400	Salt
12N1	Bright Angel	34	33N	3E	8400	Lower Colorado
12R1	Camp Wood	3	16N	6W	5700	Verde
10R7-M	Canyon Creek #2	18	11N	15E	7500	Little Colorado
11R2-M	Casner Park	19	18N	8E	6930	Verde
12P1-M	Chalender	27	22N	3E	7100	Verde
12R6	Copper Basin Divide (p)	23	13N	3W	6720	Verde
10R8 -*	Corduoy Creek	4	8N	21E	6000	Salt
9S7	Coronado Trail	26	5N	30E	8000	San Francisco
10R6	Forest Dale	2	9N	21E	6430	Salt
11P2	Fort Valley (p)	22	22N	6E	7350	Little Colorado
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado
8S1-M	Frisco Divide	31	6S	20W****	8000	San Francisco
12R4	Gaddes Canyon	11	15N	2E	7600	Verde
10R5	Gentry	36	11N	15E	7650	Salt
11P1	Grand Canyon	21	30N	4E	7500	Lower Colorado
9S11	Hannagan Meadows (p)	19	3N	29E	9090	Salt
11R5	Happy Jack	30	17N	9E	7630	Verde
10R4	Heber (p)	28	11N	15E	7600	Little Colorado
8S9-A	Hummingbird	19	11S	17E	10550	San Francisco
8S6	Ice King	6	11S	18W****	8020	San Francisco
7S2	Inman	6	11S	10W****	7800	Gila
12R2	Iron Springs	22	14N	3W	6200	Bill Williams
9S2	Maverick Fork (p)	13	6N	27E	9150	Salt
9R2-M	McNary	23	8N	23E	7200	Salt
9R1	Milk Ranch	33	8N	23E	7000	Salt
12R3	Mingus Mountain	3	15N	2E	7100	Verde
8S2	Mogollon	2	11S	19W****	7000	San Francisco
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado
11R3-M	Mormon Mountain (p)	14	18N	8E	7500	Verde
11R1-M	Munds Park	7	18N	7E	6500	Verde
11P5-M	Newman Park	25	19N	6E	6750	Verde
9S4	Nutrioso	23	6N	30E	8500	San Francisco
9S5	Pacheta	27	4-1/2N	27E	7800	Salt
8S7	Redstone Trail	5	11S	18W****	8600	San Francisco
10T2	Rose Canyon	15	12S	16E	7300	Gila
8S8	Silver Creek Divide	4	11S	18W****	9000	San Francisco
11P4	Snow Bowl #1 (p)	36	23N	6E	10260	Verde
11P6	Snow Bowl #2	31	23N	7E	11000	Verde
9S8	State Line	6	6S	21W****	8000	San Francisco
12R5	White Spar	19	13N	2W	6000	Verde
8S10-A	Whitewater	19	11S	17E	10750	Gila
13P1	Willow Ranch	16	21N	11W	5000	Bill Williams
9R6	Wilson Lake	4	7N	26E	9000	Salt
10S1	Workman Creek	33	6N	14E	6900	Salt

* SOIL MOISTURE STATION ONLY

** NUMBER INDICATES LOCATION OF SNOW COURSE WITHIN COORDINATE RECTANGLE, THUS 9N1 IS COURSE #1 IN COORDINATE RECTANGLE 9N.

*** ALL IN GILA AND SALT RIVER BASIN AND MERIDIAN EXCEPT WHERE OTHERWISE INDICATED.

**** NEW MEXICO PRINCIPAL MERIDIAN

M SOIL MOISTURE STATION INSTALLED ON OR IN VICINITY OF SNOW COURSE.

(p) STORAGE GAGE INSTALLED ON OR IN VICINITY OF SNOW COURSE.

A AERIAL SNOW DEPTH GAGE

ARIZONA WATER SUPPLY OUTLOOK

APRIL 1, 1966

* * * * *
* The Arizona Water Supply Outlook is excellent. *
* Reservoirs are filling rapidly if not already *
* full. San Carlos Reservoir will not fill, but *
* it contains the most water since 1943. *
* * * * *

SNOW COVER: Extremely warm temperatures the last three weeks has melted most of the snow up to an elevation of 8000'. In the White Mts. above 9000' about 1/4 of the snow pack has melted since the last survey on March 15. There has been slightly less melting on the Gila Watershed at the higher elevations, but at the lower levels there is no snow. At Silver Creek Divide in the Mogollon Mts. at 9000' there is 45" of snow containing 19" of water. Hannagan Meadows reported 32" of depth and 14.4" of water. At the aerial markers at 11,000' both on Mt. Ord and Whitewater Baldy there has been no melting. Snow depths of 90" with water equivalents of 35" are still present there.

PRECIPITATION: Since January 1, precipitation has been about half of normal at most watershed stations. The last half of March has been still drier.

RESERVOIR STORAGE: The Salt River Project Reservoirs are 96% of capacity and presently contain more water than has ever been held in storage. Lyman Reservoir also has never contained this much water. It is expected to start spilling about April 7, if the warm weather continues. San Carlos Reservoir, although containing only 41% of capacity, has the highest storage in 23 years.

STREAM FLOW AND WATER SUPPLY: Since October, the Salt River Project streams have produced over 1.5 million acre feet of water. Another 216,000 is forecast for April and May. With good summer runoff, the total for the water year may very well reach 2 million acre feet. The 1965 Calendar year produced 2,383,000 acre feet. This is the highest since 1941, but a far cry from the 5 million acre feet produced in 1905.

March runoff has been high due to the warm temperatures. Runoff forecasts for April-May are now below average on the Verde and Tonto streams, but 125%, 146%, and 181% of average on the Salt, Gila, and Little Colorado Rivers respectively. The Verde and Gila Rivers are receding, while the Salt and Little Colorado Rivers will probably reach their peak during the first week of April if the warm temperatures hold.

Surface water supplies will certainly be abundant this year and most reservoirs will carry over large amounts of stored water for next year.

THIS IS THE FINAL SNOW SURVEY AND WATER SUPPLY FORECAST BULLETIN for 1966.

THE HISTORY OF THE
CITY OF BOSTON

FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME

BY
JOHN H. COLEMAN
OF THE
CITY OF BOSTON

IN TWO VOLUMES.

VOLUME I.
FROM THE FIRST SETTLEMENT
TO THE YEAR 1700.

BOSTON:
PUBLISHED BY
JOHN H. COLEMAN,
AT THE
CITY OF BOSTON.

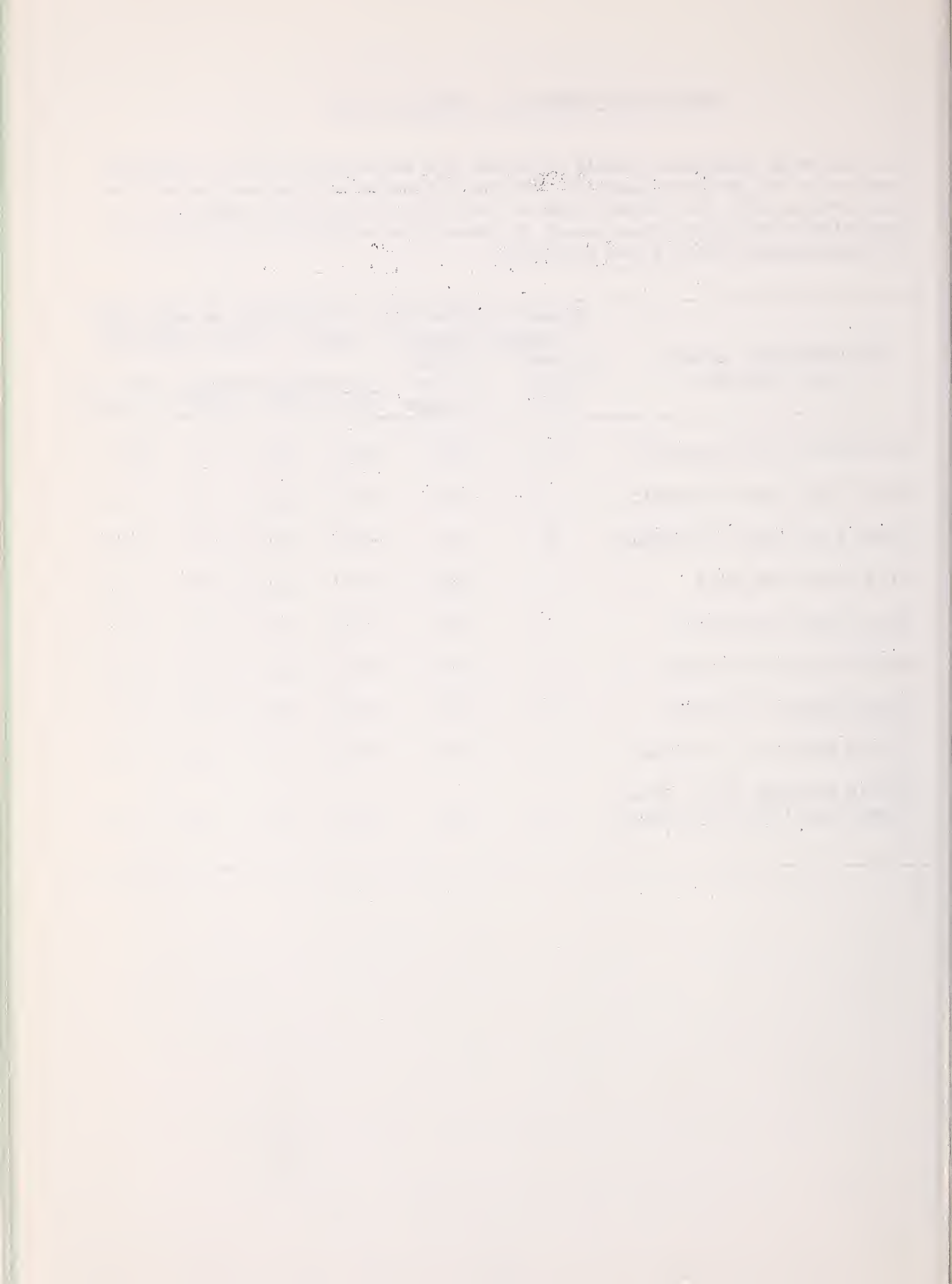
1850.

THE HISTORY OF THE
CITY OF BOSTON

STREAM FLOW FORECASTS - APRIL 1, 1966

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

SUB-WATERSHED, STREAM and STATION	SEASONAL STREAM FLOW IN THOUSANDS OF ACRE FEET					
	FORECAST PERIOD: APRIL - MAY, INCLUSIVE					
	Forecast Runoff 1966	Percent 15-Year Average	Measured Runoff			1948-62 Average
			1965	1964	1963	
Salt River near Roosevelt	180	125	292.4	79.6	71.9	144.2
Tonto Creek near Roosevelt	5	62	44.6	6.7	1.7	8.1
Verde River above Horseshoe	31	65	273.8	71.0	16.2	48.0
Gila River near Gila	26	137	18.1	8.3	15.0	19.0
Gila River near Virden	29	144	17.3	6.0	15.4	20.1
Gila River near Solomon	57	146	39.4	10.7	27.9	39.0
Frisco River at Clifton	30	142	25.1	6.8	15.2	21.1
Frisco River near Glenwood	14	147	10.9	1.5	4.6	9.5
Little Colorado River above Lyman Dam (APRIL-JUNE, Incl.)	13	181	16.5	3.7	1.0	7.2



1966

TOTAL SPRING RUNOFF

STREAM and STATION	Measured ^{1/} Runoff Jan.-Mar.	Forecast Runoff April-May	<u>January thru May, Inclusive</u>		
			1966	15-Year Average	% of Average
Salt River at Intake	343.9	180	523.9	319.1	164
Verde River above Horseshoe	193.7	31	224.7	185.8	121
Tonto River above Roosevelt	33.3	5	38.3	50.9	75
Gila River nr. Virden	124.4	29	153.4	67.8	226
Gila River nr. Solomon	270.9	57	327.9	135.3	242
Frisco River at Clifton	127.5	30	157.5	68.7	229
Little Colorado River above Lyman Dam (Jan. thru June, Incl.)	8.7 ^{2/}	13	21.7	9.8	221

^{1/} Provisional stream flow data supplied by Salt River Project and U.S. Geological Survey.

^{2/} Stream flow based partially on change in storage of Lyman Reservoir.

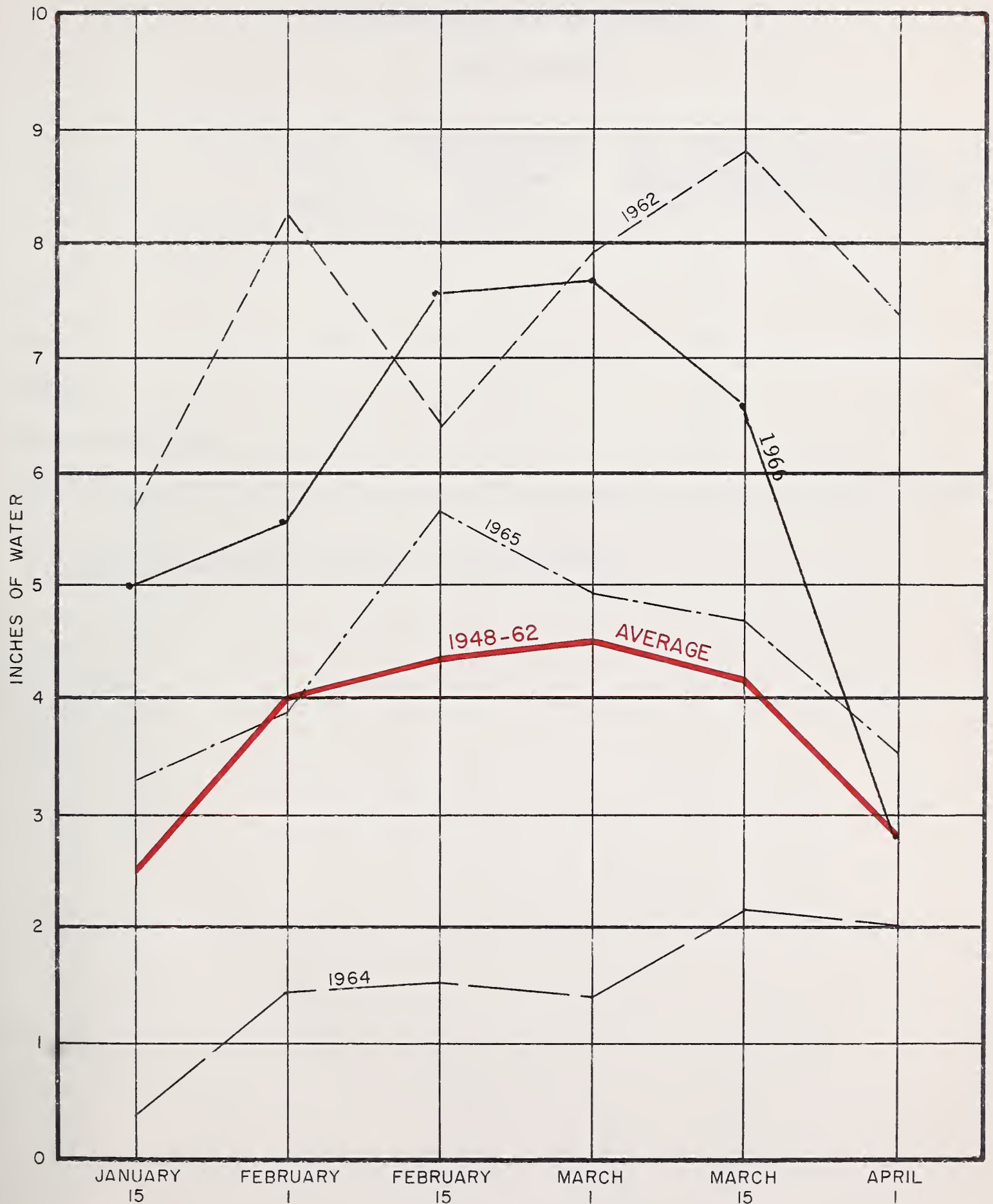
STATUS OF ARIZONA RESERVOIR STORAGE - ABOUT APRIL 1, 1966

SUB- WATERSHED and/or STREAM	RESERVOIR	USABLE CAPACITY 1000's ACRE FT.	USABLE STORAGE - 1000's ACRE FEET			
			1966	1965	1965	15 Year Average 1948-62
<u>GILA RIVER DRAINAGE</u>						
Agua Fria	Lake Pleasant	157.6	155.3	37.4	14.4	33.9
Granite	Watson Lake	4.7	4.6	4.7	4.0	---
Gila	San Carlos	1,206.0	496.1	76.6	51.7	84.0
Verde	Bartlett	179.5	174.4	121.5	27.5	79.8
Verde	Horseshoe	142.8	137.5	50.9	5.6	41.3
Salt	Roosevelt	1,382.0	1,343.3	591.3	358.2	477.3
Salt	Apache	245.0	233.6	239.4	240.5	211.2
Salt	Canyon	58.0	53.8	53.9	55.4	50.1
Salt	Saguaro	70.0	51.1	65.4	65.7	55.4
<u>COLORADO RIVER DRAINAGE</u>						
Colorado	Lake Havasu	619.4	557.3	535.1	548.6	562.8
Colorado	Lake Mohave	1,810.0	1,734.5	1,663.0	1,664.0	1,564.3*
Colorado	Lake Mead	27,207.0	15,502.0	11,151.0	14,607.0	16,604.2
Colorado	Lake Powell	25,002.0	8,907.4	6,221.8	3,002.0	---
Little Colo.	Lyman	30.6	27.7	12.7	11.1	8.4
Little Colo.	Show Low Lake	5.1	5.1	4.9	0.7	2.2*

* Average is for less than 15 years of record in the 1948-62 period.

RELATIVE SNOW WATER ACCUMULATION ARIZONA

APRIL 1, 1966



This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.

SNOW COVER ON ARIZONA WATERSHEDS

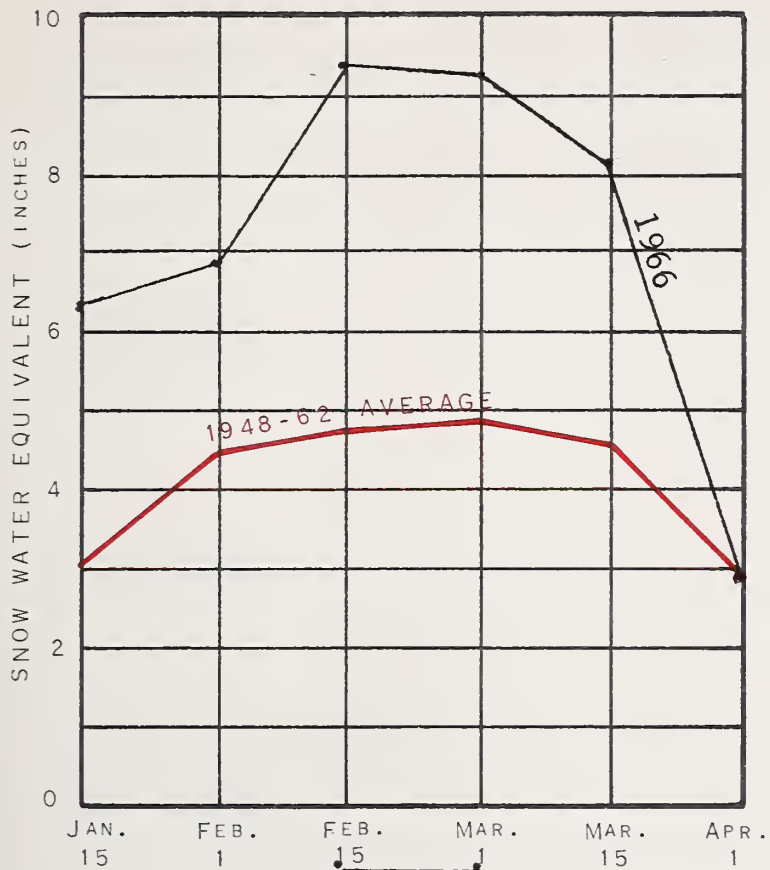
APRIL 1, 1966

Watershed	No. of Courses Average	Water Content of Snow (Inches)	This Year's Water Content of Snow Expressed as Percent of:	
			Last Year	Average *
Gila	7	0.3	75	50
Salt	10	3.0	87	104
Verde	7	0.6	21	22
Little Colorado	4	4.2	82	114

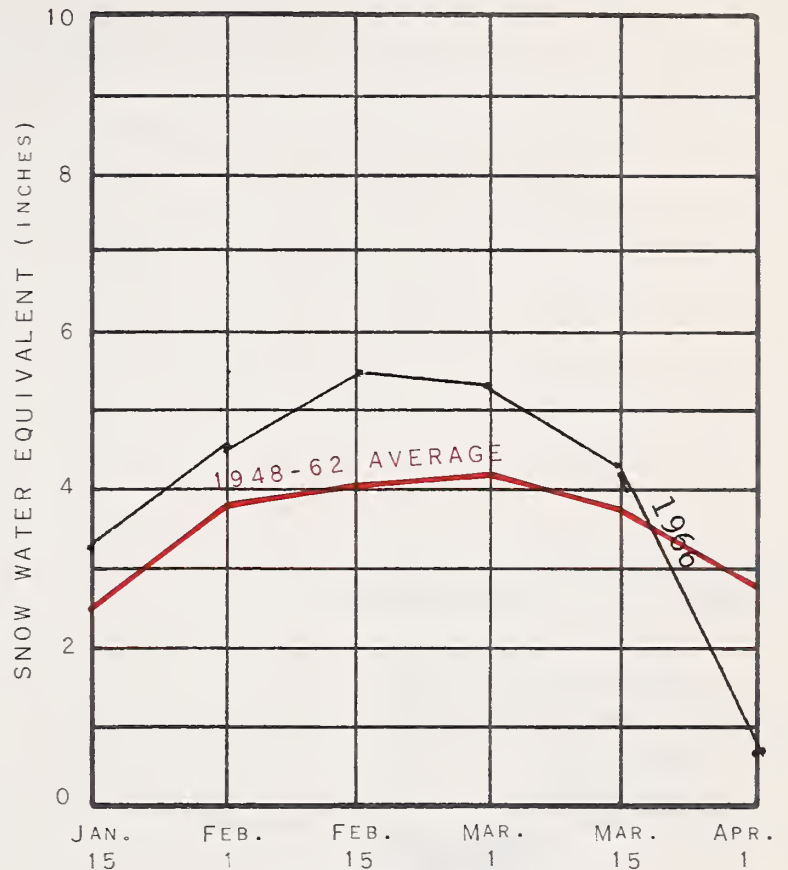
* Actual or Estimated 1948-62, 15-year Average

1966

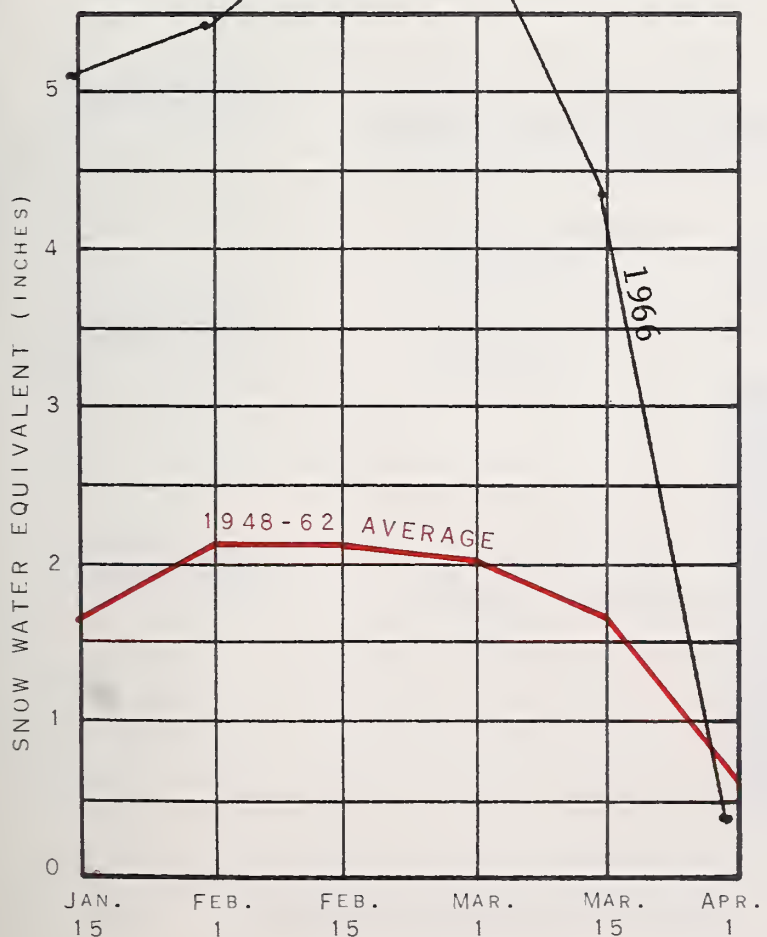
ARIZONA SNOW COVER BY WATERSHEDS



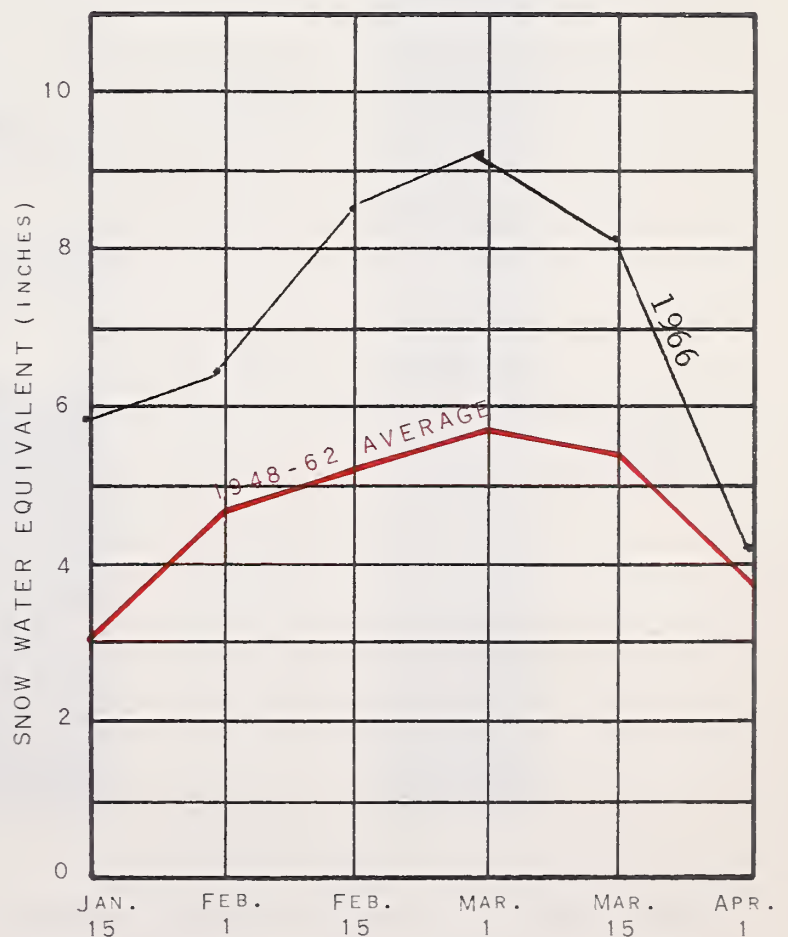
SALT RIVER



VERDE RIVER



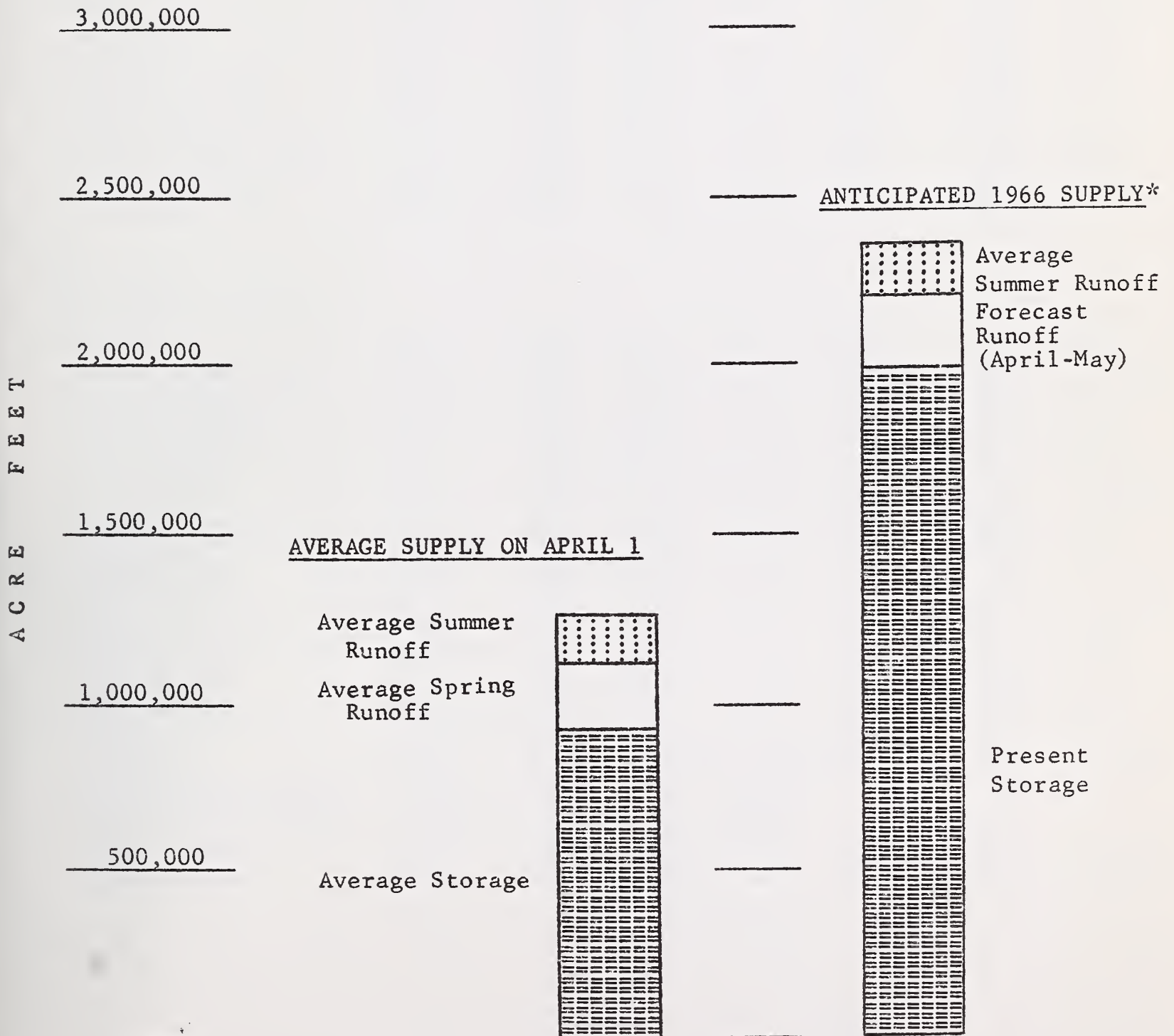
GILA RIVER



LITTLE COLORADO RIVER

BASED ON SELECTED SNOW SURVEY COURSES

WATER SUPPLY INVENTORY
SALT RIVER VALLEY SYSTEM
APRIL 1, 1966



* Based on present Storage + Forecast Spring runoff + Average Summer runoff.

SNOW ABOUT APRIL 1, 1966

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^a

GILA RIVER

Bear Wallow	10T1	8100	3/30	21	8.9	3.4	1.8
Beaver Head	9S6	8000	3/30	6	2.1	0.6	1.2
Coronado Trail	9S7	8000	3/31	0	0.0	0.5	1.1
Frisco Divide	8S1-M	8000	3/31	T	T	0.7	0.7
Hannagan Meadows *	9S11	9090	3/30	32	14.4	10.9	---
Hummingbird #2 (A)	8S10-A	10400	3/31	61	30.0	21.1	---
Ice King	8S6	8020	3/30	16#	6.5#	7.8	---
Inman	7S2	7800	3/31	0	0.0	0.0	0.0
Mogollon	8S2	7000	3/30	T	T	0.0	0.3 **
Nutrioso	9S4	8500	3/31	0	0.0	1.1	0.6
Redstone Trail	8S7	8600	3/31	28	10.8	9.3	---
Rose Canyon	10T2	7300	3/30	1	0.2	0.0	0.6
Silver Creek Divide	8S8	9000	3/30	45	19.0	13.5	---
State Line	9S8	8000	3/31	0	0.0	0.0	0.4
Whitewater (A)	8S9-A	10500	3/31	94	34.5	24.3	---

SALT RIVER

Baldy *	9S1	9125	3/31	20	8.5	9.6	6.1 **
Beaver Head	9S6	8000	3/30	6	2.1	0.6	1.2
Canyon Creek #2	10R7-M	7500	3/30	0	0.0	1.1	1.1 **
Coronado Trail	9S7	8000	3/31	0	0.0	0.5	1.1
Forest Dale	10R6	6430	3/31	0	0.0	0.0	0.0
Ft. Apache *	9R5	9160	3/31	21	8.3	9.4	7.6 **
Gentry	10R5	7600	3/30	0	0.0	T	1.0 **
Hannagan Meadows	9S11	9090	3/30	32	14.4	10.9	---
Hawley Lake	9R10	8300	3/31	2	0.7	---	---
Heber	10R4	7600	3/30	0	0.0	1.1	1.3 **
Maverick Fork	9S2	9050	3/31	24	11.4	11.7	8.2 **
McNary	9R2-M	7200	3/31	0	0.0	0.5	0.4
Milk Ranch	9R1	7000	3/31	0	0.0	0.0	0.0
Mt. Ord (A)	9R9-A	11000	3/19	87	35.2	---	---
Nutrioso *	9S4	8500	3/31	0	0.0	1.1	0.6
Pacheta	9S5	7800	Report Delayed			0.0	1.0 **
Smith Cienega #1 (A)	9R7-A	9700	No Survey			---	---
Smith Cienega #2 (A)	9R8-A	9900	No Survey			---	---
Wilson Lake	9R6	9000	3/30	20	8.5	13.0	---
Workman Creek	10S1	6900	3/31	0	0.0	0.0	2.2 **

(a) 1948-62, 15 year period. (*) Adjacent drainage. (**) 1948-62 Adjusted Average. (A) Aerial observation: Water content estimated. # Estimated.

SNOW ABOUT APRIL 1, 1966

DRAINAGE BASIN and SNOW COURSE			CURRENT INFORMATION			PAST RECORD	
			DATE OF SURVEY	SNOW DEPTH (Inches)	WATER CONTENT (Inches)	WATER CONTENT (Inches)	
NAME	NO.	ELEVATION				LAST YEAR	AVERAGE ^a

VERDE RIVER

Baker Butte	11R6	7300	3/28	9	3.7	---	---
Camp Wood	12R1	5700	3/30	0	0.0	0.0	0.0
Casner Park	11R2-M	6930	3/30	0	0.0	T	1.7 **
Chalender	12P1-M	7100	3/31	0	0.0	2.7	1.5
Copper Basin Divide	12R6	6720	3/31	0	0.0	0.0	---
Fort Valley	11P2	7350	3/31	0	0.0	0.0	1.4
Gaddes Canyon	12R4	7600	3/31	10	3.2	7.5	5.2 **
Happy Jack *	11R5	7630	3/31	0	0.0	1.1	2.6 **
Iron Springs *	12R2	6200	3/31	0	0.0	0.0	0.0
Mingus Mountain	12R3	7100	3/31	0	0.0	0.0	0.1
Mormon Lake *	11R4	7350	3/28	T	T	3.0	3.3
Mormon Mountain	11R3-M	7500	3/29	1	0.9	5.7	4.9 **
Munds Park	11R1-M	6500	3/29	0	0.0	T	1.1 **
Newman Park	11P5-M	6750	3/29	0	0.0	T	---
Snow Bowl #1	11P4	10260	Report	Delayed		15.2	---
Snow Bowl #2	11P6	11000	Report	Delayed		22.6	---
White Spar	12R5	6000	3/31	0	0.0	0.0	---

BILL WILLIAMS RIVER

Camp Wood *	12R1	5700	3/30	0	0.0	0.0	0.0
Copper Basin Divide	12R6	6720	3/31	0	0.0	0.0	---
Iron Springs	12R2	6200	3/31	0	0.0	0.0	0.0
Willow Ranch	13P1	5000	3/31	0	0.0	0.0	0.0

LOWER COLORADO RIVER

Bright Angel	12N1	8400	No	Survey		10.8	9.3 **
Chalender *	12P1-M	7100	3/31	0	0.0	2.7	1.5
Fort Valley	11P2	7350	3/31	0	0.0	0.0	1.4
Grand Canyon	11P1	7500	3/31	0	0.0	0.0	1.1

LITTLE COLORADO RIVER

Baldy	9S1	9125	3/31	20	8.5	9.6	6.1 **
Canyon Creek #2	10R7-M	7500	3/30	0	0.0	1.1	1.1 **
Forest Dale	10R6	6430	3/31	0	0.0	0.0	0.0
Ft. Apache	9R5	9160	3/31	21	8.3	9.4	7.6 **
Fort Valley	11P2	7350	3/31	0	0.0	0.0	1.4
Gentry	10R5	7600	3/30	0	0.0	T	1.0 **
Happy Jack *	11R5	7630	3/31	0	0.0	1.1	2.6 **
Heber	10R4	7600	3/30	0	0.0	1.1	1.3 **
McNary	9R2-M	7200	3/31	0	0.0	0.5	0.4
Mormon Lake	11R4	7350	3/28	T	T	3.0	3.3
Mormon Mountain	11R3-M	7500	3/29	1	0.9	5.7	4.9 **
Nutriososo	9S4	8500	3/31	0	0.0	1.1	0.6
Snow Bowl #1	11P4	10260	Report	Delayed		15.2	---
Snow Bowl #2	11P6	11000	Report	Delayed		22.6	---
Wilson Lake *	9R6	9000	3/30	20	8.5	13.0	---

(a) 1948-62, 15 year period. (*) Adjacent drainage. (**) 1948-62 Adjusted Average. (A) Aerial observation: Water content estimated.

PRECIPITATION

STORAGE GAGE DATA - ABOUT APRIL 1, 1966

Drainage Basin and Storage Gage	Elev.	Current Data		1948-62	From Approx. 11/1 to Date			
		Date of Reading	March Precip.	Av. March Precip.	This Year	1948-62 Average	% of Average	
<u>GILA RIVER</u>								
Silver Creek Divide	9000	3/31	1.15	---	25.84	---	---	
Hannagan Meadows	9030	3/30	1.08	3.37*	19.24	13.90*	138	
<u>SALT RIVER</u>								
Hannagan Meadows	9030	3/30	1.08	3.37*	19.24	13.90*	138	
Little Wildcat (Heber Snow Course)	7600	3/30	1.31	3.20*	21.42	14.17*	151	
Maverick Fork	9050	3/31	1.30	2.97*	20.45	12.18*	168	
Workman Creek **	6970	3/31	.85	3.66	30.24	17.20	176	
<u>VERDE RIVER</u>								
Baker Butte	7300	3/29	1.69	---	---	---	---	
Copper Basin Divide	6720	3/31	.84	---	20.34	---	---	
Fort Valley **	7350	3/31	1.48	1.84	13.58	9.00	151	
Happy Jack **	7480	3/31	.60	2.67*	17.38	11.82*	147	
Mingus Mountain	7660	3/31	1.11	2.11	16.88	10.11	167	
Mormon Mountain	7500	3/29	2.85	---	25.22	---	---	
<u>LITTLE COLORADO</u>								
Sheep Crossing (Baldy Snow Course)	9125	3/31	1.53	2.53*	17.58	10.88*	162	
Little Wildcat (Heber Snow Course)	7600	3/30	1.31	3.20*	21.42	14.17*	151	

* 1948-62 Adjusted Average

** Data supplied by U. S. Forest Service

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ARIZONA SOIL MOISTURE - ABOUT APRIL 1, 1966

Drainage Basin and Station	<u>1/</u> Station Number	Elev.	Soil Profile in Inches		Date	Soil Moisture Content in Inches			
			Depth	Cap.		1966	Past Record		Avg.
							1965	1964	

GILA RIVER

Frisco Divide	8S1-M	8000	48	13.3	3/31	12.6	11.8	6.9	11.7
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SALT RIVER

Black River Divide	9S10-*	9100	48	16.8	3/31	18.1	17.9	15.6	15.9
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Canyon Creek #2	10R7-M	7500	48	18.3	3/30	18.4	14.7	14.5	14.5
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Corduroy Creek	10R8-*	6000	48	16.0	3/30	14.7	12.2	7.1	9.7
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McNary	9R2-M	7200	48	16.3	3/30	17.9	17.9	13.5	14.8
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VERDE RIVER

Casner Park	11R2-M	6930	48	19.1	3/29	20.9	21.0	15.8	17.0
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Mormon Mountain	11R3-M	7500	48	16.1	3/29	17.7	17.7	15.6	16.2
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1/

* - Soil Moisture Station Only

M - Snow Course and Soil Moisture Station

LIST OF SNOW SURVEYORS

<u>SNOW COURSE</u>	<u>SURVEYOR</u>
Baker Butte -----	SCS and SRVWUA
Baldy -----	SCS and SRVWUA
Bear Wallow -----	Forest Service - Allan Hinds
Beaver Head -----	N. A. Josh
Bright Angel -----	National Park Service - Bob Peterson
Camp Wood -----	Lyn Pehl
Canyon Creek #2 -----	SCS and SRVWUA
Casner Park -----	SCS and SRVWUA
Chalender -----	Forest Service - Mel Richards
Copper Basin Divide -----	SCS - Bill Gray
Coronado Trail -----	Forest Service - Curtis Connolly
Forest Dale -----	Bureau of Indian Affairs - Raymond Endfield
Ft. Apache -----	SCS and SRVWUA
Fort Valley -----	Rocky Mountain Forest & Range Exp. Station
Frisco Divide -----	Forest Service - Joe Clayton
Gaddes Canyon -----	Paul G. Lidbeck
Gentry -----	SCS and SRVWUA
Grand Canyon -----	National Park Service - Larry Hakel
Hannagan Meadows -----	N. A. Josh
Happy Jack -----	Emil O. Ryberg
Hawley Lake -----	Bureau of Indian Affairs - Raymond Endfield
Heber -----	SCS and SRVWUA
Hummingbird #2 -----	Ray Freeman
Ice King -----	James R. Wray
Inman -----	C. H. McCauley
Iron Springs -----	SCS - Bill Gray
Maverick Fork -----	SCS and SRVWUA
McNary -----	Bureau of Indian Affairs - Raymond Endfield
Milk Ranch -----	Bureau of Indian Affairs - Raymond Endfield
Mingus Mountain -----	Paul G. Lidbeck
Mogollon -----	James R. Wray
Mormon Lake -----	SCS and SRVWUA
Mormon Mountain -----	SCS and SRVWUA
Mt. Ord -----	Jim Sparks
Munds Park -----	SCS and SRVWUA
Newman Park -----	SCS and SRVWUA
Nutrioso -----	Forest Service - Curtis Connolly
Pacheta -----	Foch Phillips
Redstone Trail -----	James R. Wray
Rose Canyon -----	Forest Service - Allan Hinds
Silver Creek Divide -----	James R. Wray
Smith Cienega #1 -----	Jim Sparks
Smith Cienega #2 -----	Jim Sparks
Snow Bowl #1 -----	Forest Service - Richard Nielsen
Snow Bowl #2 -----	Forest Service - Richard Nielsen
State Line -----	Forest Service - Joe Clayton
White Spar -----	SCS - Bill Gray
Whitewater -----	Ray Freeman
Willow Ranch -----	Tiny Miller
Wilson Lake -----	SCS and SRVWUA
Workman Creek -----	Rocky Mountain Forest & Range Exp. Station

[illegible]

the 1990s, the number of people in the world who are undernourished has declined from 1.1 billion to 800 million. The number of people who are malnourished has declined from 1.5 billion to 1 billion. The number of people who are obese has increased from 100 million to 300 million. The number of people who are overweight has increased from 100 million to 300 million. The number of people who are obese and overweight has increased from 100 million to 300 million. The number of people who are obese and overweight has increased from 100 million to 300 million.

the 1990s, the number of people in the world who are illiterate has increased from 1.2 billion to 1.5 billion. The number of illiterate people in the world is expected to increase to 1.7 billion by the year 2015. The number of illiterate people in the world is expected to increase to 1.9 billion by the year 2020. The number of illiterate people in the world is expected to increase to 2.1 billion by the year 2025. The number of illiterate people in the world is expected to increase to 2.3 billion by the year 2030. The number of illiterate people in the world is expected to increase to 2.5 billion by the year 2035. The number of illiterate people in the world is expected to increase to 2.7 billion by the year 2040. The number of illiterate people in the world is expected to increase to 2.9 billion by the year 2045. The number of illiterate people in the world is expected to increase to 3.1 billion by the year 2050. The number of illiterate people in the world is expected to increase to 3.3 billion by the year 2055. The number of illiterate people in the world is expected to increase to 3.5 billion by the year 2060. The number of illiterate people in the world is expected to increase to 3.7 billion by the year 2065. The number of illiterate people in the world is expected to increase to 3.9 billion by the year 2070. The number of illiterate people in the world is expected to increase to 4.1 billion by the year 2075. The number of illiterate people in the world is expected to increase to 4.3 billion by the year 2080. The number of illiterate people in the world is expected to increase to 4.5 billion by the year 2085. The number of illiterate people in the world is expected to increase to 4.7 billion by the year 2090. The number of illiterate people in the world is expected to increase to 4.9 billion by the year 2095. The number of illiterate people in the world is expected to increase to 5.1 billion by the year 2100.

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The Following Organizations Cooperate in the Arizona Snow Survey Work

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Soil Conservation Service

Forest Service

Apache Forest

Coconino Forest

Coronado Forest

Gila Forest

Kaibab Forest

Prescott Forest

Rocky Mountain Forest and Range Experiment Station

Tonto Forest

Department of Commerce

Weather Bureau

Arizona Section

Department of Interior

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San Carlos Irrigation Project

National Park Service

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Gila Water Commissioner

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Salt River Valley Water Users' Association

Phoenix, Arizona

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